

Appl. No. 09/855,924
Amdt. Dated October 15, 2003
Reply to Office Action of April 16, 2003
Attorney Docket No. 13445-102

REMARKS

The Office Action of April 16, 2003 has been carefully reviewed and this response addresses the Examiner's concerns stated in the office action and during the telephonic interview on September 24, 2003 (see interview summary sheet and provided below). Claims 1-28 are now pending. Claims 1-22 have been amended to better claim the invention. Claims 23-28 have been added based on subject matter found in the specification, including the figures. All rejections are respectfully traversed.

A Petition for a three-month extension and an extension fee of \$475 for a small entity is attached hereto.

An additional fee of \$54 is required and included herewith for claim examination since the previously paid filing fee was for three independent claims and twenty-two total claims for the patent application mailed May 15, 2001, and now pending there are three independent claims and twenty-eight total claims (additional 6 dependent claims).

Applicant's attorney, Peter J. Borghetti, would like to thank Examiner Pierce for his time and for the informative telephonic interview on September 24, 2003. Though no agreement with respect to the claims was reached to overcome the rejections based on the cited references, the substance of the interview has helpful to Applicant in the drafting of this response and the drafting of the claim amendments contained herein. The substance of the interview was a discussion of "possible amendments to the claims and relation of the prior art to the present claims," and "[s]pecifically, the 'cloth' limitation in the independent claims 1 and 11 is currently interpreted very broadly, since no structure is given to define what the cloth is."

Appl. No. 09/855,924
Amdt. Dated October 15, 2003
Reply to Office Action of April 16, 2003
Attorney Docket No. 13445-102

Claims 1-22 have been amended to better claim the invention as described in the specification, including the drawings. In particular, independent claims 1, 6, and 11 include amended sections that claim the structure of the cloth or fabric as a "cloth wiper" or a "2-sided cloth wiper" (Applicant's application, FIG. 1), "being substantially devoid of anti-static properties," (a known characteristic of conventional or ordinary wiping cloth material such as cotton and nylon) (Applicant's application, page 5, paragraph 16, lines 4-6), and a "wiping surface being substantially devoid of said plurality of ionizing points" or "...ionizing point network being disposed on one side of said each side of said 2-sided cloth wiper." The Interview Summary states: "Discussed possible amendments to the claims and relation of the prior art to the present claims. Specifically, the *"cloth" limitation in the independent claims 1 and 11 is currently interpreted very broadly, since no structure is given to define what the cloth is.*" Applicant has amended independent claims 1, 6, and 11 to more clearly claim the structure of the cloth or fabric of the ionizing wiper to overcome the above-identified rejections under 35 USC §102 and 35 USC §103.

Further, claim 1 was amended to claim "a cloth wiper made of soft yarn-like material suitable for hand-wiping dust from the electrically insulative surface." Applicant's ionizing wiper is for hand-wiping, which is inherently supported by the general definition of a wiper, for example:

"wiper: Something, such as a towel, used for wiping"

*The American Heritage® Dictionary of the English Language,
Fourth Edition, Copyright© 2000 by Houghton Mifflin
Company*

"wiper: Something used for wiping, as a towel or rag"

*Webster's Revised Unabridged Dictionary, , Copyright©
1996, 1008, MICRA, Inc.*

Appl. No. 09/855,924
Amdt. Dated October 15, 2003
Reply to Office Action of April 16, 2003
Attorney Docket No. 13445-102

Since it is common knowledge and generally accepted that a towel and a rag are suitable for hand-wiping, Applicant's cloth wiper is also suitable for hand-wiping based on the above reasoning.

The new claim language of claims 1, 6, and 11 is drawn from the specification, including the drawings, or inherent and generally accepted characteristics. Further, dependent claims 2-5 (based upon amended independent claim 1), dependent claims 7-10 (based upon amended independent claim 6), and dependent claims 12-22 and (based upon amended independent claim 11) are also now patentably distinct over the cited references and are also allowable.

The Office Action rejects claims 1-22 under 35 U.S.C. §102(b) as being anticipated by printed publications that described Applicant's invention more than one year prior to the date of Applicant's patent application. Under a 35 U.S.C. §102 rejection, all of the limitations found in the claims must be shown in the references relied upon for such a rejection. In light of the amended claims, Applicant presents the following arguments based upon a 35 U.S.C. §102 rejection of the claims.

In order to better understand the distinctions between the cited references and the claimed invention it should be recognized that a patentable distinction resides in that the claimed invention is hand-held and that air is ionized to remove surface charge already established on an electrically insulative surface between the ionizing points. The weaving of strands into a cloth wiper allows the creation of air gaps with the electrically insulative surface to be wiped in order to create ionized air that comes in contact with the static charges on the electrically insulative surface.

In contrast to the claimed product, the cited references define a product that requires physical contact with a electrically charged surface and only removes charge with which it comes in physical

contact. The mats and carpets of the cited references are "anti-static" in the sense that they prevent the build-up of charge by grounding through a conductive network charges in physical contact. However, the insulative nature of the electrically insulative surface prevents migration of the static charge to such devices cited in the references.

On page 2, paragraph 3, the Office Action asserts claims 1-3, 11-15, and 19-22 are rejected under 35 U.S.C. 35 USC §102(b) as being anticipated by Larkin (US. Pat. No. 5,740,006). The Office action further states that Larkin ('006) discloses a fabric having a multiplicity of electrically conductive microfibers crossing one another to create an ionizing point network ('006, column 4, lines 53-66). As stated above, independent claims 1 and 11 have been amended to claim the structure of the cloth or fabric as a "cloth wiper" or a "2-sided cloth wiper" (Applicant's application, FIG. 1) and "being substantially devoid of anti-static properties." It is general knowledge that conventional or ordinary wiping cloth material, such as cotton and nylon (Applicant's application, page 5, paragraph 16, lines 4-6), do not inherently exhibit anti-static properties. Larkin ('006) discloses a fabric woven or knitted from yarns spun with microfibers ('006, column 6, lines 1-2). The microfibers disclosed by Larkin ('006) are electrically conductive microfibers that have anti-static properties ('006, column 6, lines 7-10, lines 58-63). Hence, the fabric disclosed in Larkin ('006) has anti-static properties and, therefore, Larkin ('006) does not disclose a 2-sided cloth wiper or fabric that is substantially devoid of anti-static properties as now claimed by Applicant. Therefore, Applicant respectfully requests Examiner to reconsider the rejections of independent claims 1 and 11 rejected under 35 USC §102(b) as no longer appropriate. Further, dependent claims 2-3 (based upon amended independent claim 1) and dependent claims 12-15 and 19-22 (based upon amended independent claim 11) are also now patentably distinct over the cited references and are also allowable, since they

Appl. No. 09/855,924
Amdt. Dated October 15, 2003
Reply to Office Action of April 16, 2003
Attorney Docket No. 13445-102

depend from now allowable independent claims or intervening dependent claims that depend from now allowable independent claims.

The Office Action further asserts with regards to dependent claims 2 and 14 that Larkin ('006) discloses an ionizing point network woven into the fabric (column 6, line 1). Though dependent claims 2 and 14 are now allowable since they depend from a now allowable independent claim or intervening dependent claim that depend from a now allowable independent claim, Applicant presents the following arguments based upon a 35 U.S.C. §102 rejection of the claims for further consideration.

Applicant respectfully disagrees with the Office Action's interpretation that Larkin ('006) discloses "an ionizing point network woven into the fabric". As stated above, Larkin ('006) weaves the microfibers to form a fabric with anti-static properties (column 6, lines 1-2). Larkin ('006) does not weave or interweave microfibers into an existing fabric as claimed by Applicant. Applicant weaves or interweaves the ionizing point network into an existing fabric or cloth wiper, which is substantially devoid of anti-static properties to form an anti-static charge surface on the fabric (Applicant's application, paragraph 16, lines 6-9). Since Larkin ('006) cannot meet the patentable limitations found in Applicant's claims 2 and 14, Applicant respectfully requests Examiner to reconsider the rejections of claims 2 and 14 rejected under 35 USC §102(b) as no longer appropriate.

The Office Action further asserts with regards to claims 3 and 15 that Larkin ('006) discloses the ionizing point network being adhered to the surface ('006, column 6, line 4). Though dependent claims 3 and 15 are now allowable since they depend from a now allowable independent claim or intervening dependent claim that depend from a now allowable independent claim, Applicant presents the

Appl. No. 09/855,924
Amdt. Dated October 15, 2003
Reply to Office Action of April 16, 2003
Attorney Docket No. 13445-102

following arguments based upon a 35 U.S.C. §102 rejection of the claims for further consideration.

Applicant has amended claims 3 and 15 to more clearly define surface the ionizing point network is adhered to. Applicant now claims the ionizing point network is adhered to a surface of the 2-sided cloth wiper. Whereas, Larkin ('006) discloses the surface as an adhesive layer or backing ('006, column 6, line 4) that adheres the ionizing point network to a surface within an apparatus or machine through which paper, other insulating sheets, or other statically chargeable materials flow or are propelled ('006, column 6, lines 31-34). Applicant's invention includes a convention wiper woven, for example, with ionizing static control strands (Applicant's application, Page 5, paragraph 16). Larkin ('006) does not disclose adhering the ionizing point network to conventional woven or non-woven fabric. Since Larkin ('006) cannot meet the patentable limitations found in Applicant's claims 3 and 15, Applicant respectfully requests Examiner to reconsider the rejections of claims 3 and 15 rejected under 35 USC §102(b) as no longer appropriate.

The Office Action further asserts with regards to claims 19-22, that Larkin ('006) discloses the grounding the fabric and applying a voltage to it ('006, column 9, lines 10-65). Applicant has amended independent claim 11, now patentably distinct over the cited references and allowable, from which claims 19-22 depend, and therefore claims 19-22 are now patentably distinct over the cited references and are also allowable. Therefore, Applicant respectfully requests Examiner to reconsider the rejections of claims 19-22 rejected under 35 USC §102(b) as no longer appropriate.

On page 2, paragraph 4, of the Office Action, claims 1, 2, 5-9, 11-14, and 19-22 were rejected under 35 U.S.C. §102(b) as being anticipated by Larkin (U.S. Patent No. 5,690,014). The Office Action asserts that Larkin ('014) discloses a cord comprising woven or

braided strands of electrically conductive microfibers and non-conductive fibers (column 3, lines 40-63) and that the woven cord material would have structure sufficiently similar to the claimed cloth material of Applicant's invention. As stated above, independent claims 1, 6, and 11 have been amended to claim the structure of the cloth or fabric as a "cloth wiper" or a "2-sided cloth wiper" (Applicant's application, FIG. 1) and "being substantially devoid of anti-static properties." Larkin ('014) does not disclose a cloth wiper or 2-sided cloth wiper being substantially devoid of anti-static properties, and therefore Larkin ('014) cannot meet the patentable limitations found in Applicant's claims 1, 2, 5-9, 11-14, and 19-22. Applicant has amended independent claims 1, 6 and 11, now patentably distinct over the cited references and allowable, from which dependent claims 2, 5, 7-9, 12-14 and 19-22 depend, and therefore such dependent claims are now patentably distinct over the cited references and are also allowable. Therefore, Applicant respectfully requests Examiner to reconsider the rejections of claims 1, 2, 5-9, 11-14, and 19-22 rejected under 35 USC §102(b) as no longer appropriate.

With regard to claim 5, the Office Action asserts that Larkin ('014) discloses using cotton, nylon, rayon, or polyester as the non-conductive fiber (column 6, lines 26-29). As stated above, independent claim 1, from which claim 5 depends, has been amended to claim the structure of the cloth or fabric as "a 2-sided cloth wiper" (Applicant's application, FIG. 1) and "being substantially devoid of anti-static properties," which is not disclosed in Larkin ('014). Therefore, Applicant respectfully asserts that claim 5 is patentably distinct over the cited reference and is allowable since it depends from an allowable claim. Therefore, Applicant respectfully requests Examiner to reconsider the rejections of claim 5 rejected under 35 USC §102(b) as no longer appropriate.

On page 3, paragraph 5, of the Office Action, claims 1, 3, 5-7, 11-13, and 15 were rejected under 35 U.S.C. §102(b) as being anticipated by Yamada (U.S. Patent No. 5,213,865). The Office Action asserts the Yamada ('865) discloses an anti-static mat that comprises conductive microfibers that project from the surface (column 5, lines 1-47, Figures 3-7), and that these fibers would create the claimed ionizing point network. However, Applicant respectfully asserts that Yamada ('865) discloses and claims an anti-static mat comprising a base cloth, a predetermined volume of a pile, which pile penetrates through and protrudes from said base cloth, said pile being secured to said base cloth by a backing up material ('865, claim 1). As stated above, independent claims 1, 6, and 11 have been amended to claim the structure of the cloth or fabric as a "cloth wiper" or a "2-sided cloth wiper" (Applicant's application, FIG. 1) with ionizing static control strands woven into a conventional wiper (Applicant's application, Page 5, paragraph 16) without a backing up material required by Yamada ('865). Therefore Yamada ('865) cannot meet the patentable limitations found in Applicant's claims 1, 3, 5-7, 11-13, and 15. Applicant has amended independent claims 1, 6 and 11, now patentably distinct over the cited references and allowable, from which dependent claims 2, 5, 7, 12-13 and 15 depend, and therefore such dependent claims are now patentably distinct over the cited references and are also allowable. Therefore, Applicant respectfully requests Examiner to reconsider the rejections of claims 1, 3, 5-7, 11-13, and 15 rejected under 35 USC §102(b) as no longer appropriate.

Further, the Office Action asserts with regards to claims 3 and 15, that the pile fibers are glued onto the surface through the backing material (column 8, lines 24-60). As stated above, independent claims 1 and 11, from which claims 3 and 15 respectfully depend, have been amended to claim the structure of the cloth or fabric as "cloth wiper" or a "2-sided cloth wiper" (Applicant's application, FIG. 1) and "being substantially devoid of anti-static properties," which is not disclosed in Yamada ('865). Therefore,

Appl. No. 09/855,924
Amdt. Dated October 15, 2003
Reply to Office Action of April 16, 2003
Attorney Docket No. 13445-102

Applicant respectfully asserts that claims 3 and 15 are patentably distinct over the cited reference and are allowable since they depend from now allowable claims. Therefore, Applicant respectfully requests Examiner to reconsider the rejections of claims 3 and 15 rejected under 35 USC §102(b) as no longer appropriate.

Though dependent claims 3 and 15 are now allowable since they depend from now allowable independent claims, Applicant presents the following arguments based upon a 35 U.S.C. §102 rejection of the claims for further consideration. As discussed above, Yamada ('865) discloses an antistatic mat with a backing up material ('865, Column 3, lines 64-68). Whereas, Applicant discloses a wiper made of wiping material with a high density of ionizing points being disposed along a surface of the wiper without a backing up material (Applicant's application, page 5, paragraph 16). Yamada ('065) does not disclose that the pile fibers can be glued onto the surface without the backing material. Since Yamada ('865) cannot meet the patentable limitations found in Applicant's claims 3 and 15, Applicant respectfully requests Examiner to reconsider the rejections of claims 3 and 15 rejected under 35 USC §102(b) as no longer appropriate.

With regard to claim 5, the Office Action asserts that Yamada ('865) discloses that the mat may comprise a nylon fabric (column 4, line 2). As stated above, Applicant has amended independent claim 1, now patentably distinct over the cited reference and allowable, from which claim 5 depends, and therefore claim 5 is now patentably distinct over the cited reference and are also allowable. Therefore, Applicant respectfully requests Examiner to reconsider the rejections of claim 5 rejected under 35 U.S.C. §103(a) as no longer appropriate.

On page 3, paragraph 6, of the Office Action, claims 1, 2, 4-7, 9, 11-14, and 16-18 were rejected under 35 U.S.C. §102(b) as being anticipated by Klein (U.S. Patent No. 3,678,675). The Office Action

asserts that Klein ('675) discloses a yarn (56) that is heterogeneously blended with conductive and non-conductive fibers (column 2, lines 55-57). The Office Action further asserts that the conductive staple fibers in the yarn (56) would create the claimed ionizing point network. The fibers can be woven along with facing yarns into carpet backing fiber (column 2, lines 64-67). As stated above, Independent claims 1, 6, and 11 have been amended to claim the structure of the cloth or fabric that includes a wiping surface being substantially devoid of said ionizing point network or plurality of ionizing points, which is not disclosed by Klein ('675). One method for making a carpet is shown in FIG. 7 of Klein ('675) that illustrates the conductive heterogeneous yarn 56 being tufted with carpet facing yarn 52 into the backing fabric 53. The conductive heterogeneous yarn 56 is exposed on both sides of the backing fabric 53, which is the generally known result of any of the carpet manufacturing processes listed in Klein ('675, column 6, lines 61-65). Therefore, the fabric disclosed in Klein ('675) will never have an exposed surface that is devoid of the "ionizing point network" as now claimed by Applicant. Since Klein ('675) cannot meet the patentable limitations found in Applicant's claims 1, 2, 4-7, 9, 11-14, and 16-18, Applicant respectfully requests Examiner to reconsider the rejections of claims 1, 2, 4-7, 9, 11-14, and 16-18 rejected under 35 USC §102(b) as no longer appropriate.

With regards to claims 4 and 16-18, the Office Action asserts that Klein ('675) disclosed fibers that can be directly tufted into the carpet backing fabric (column 2, lines 64-67). Applicant has amended independent claims 1 and 11, now patentably distinct over the cited references and allowable, from which claims 4 and 16-18 depend, respectively, and therefore claims 4 and 16-18 are now patentably distinct over the cited reference and are also allowable. Therefore, Applicant respectfully requests Examiner to reconsider the rejections of claims 4 and 16-18 rejected under 35 USC §102(b) as no longer appropriate.

Appl. No. 09/855,924
Amdt. Dated October 15, 2003
Reply to Office Action of April 16, 2003
Attorney Docket No. 13445-102

With regards to claim 5, the Office Action asserts that Klein ('675) disclosed fibers that may be blended with cotton or nylon fibers (column 5, lines 6-59). Applicant has amended independent claim 1, now patentably distinct over the cited reference and allowable, from which claim 5 depends, and therefore claim 5 is now patentably distinct over the cited reference and are also allowable. Therefore, Applicant respectfully requests Examiner to reconsider the rejections of claim 5 rejected under 35 U.S.C. §103(a) as no longer appropriate.

Claim 10 is rejected under 35 U.S.C. §103(a) as being unpatentable over Klein or Yamada in view of McCullough et al. (U.S. Patent No. 4,756,941). The Office Action asserts that it would be obvious to one having ordinary skill in the art to use a non-woven construction of carpet disclosed in McCullough ('941, Column 3, lines 4-48) in either Klein ('675) or Yamada ('865) in order to more easily manufacture the carpet. Applicant has amended independent claim 6, now patentably distinct over the cited reference and allowable, from which claim 10 depends, and therefore claim 10 is now patentably distinct over the cited references and are also allowable. Therefore, Applicant respectfully requests Examiner to reconsider the rejections of claim 10 rejected under 35 U.S.C. §103(a) as no longer appropriate.

In conclusion, in view of the above amendments and remarks, Applicant respectfully requests the Examiner find all claims allowable over the cited references and pass this case to issue.

Enclosed herein is a petition of a three-month extension of time and the appropriate fee for a small entity. Also enclosed is a fee for \$54 (additional 6 total claims) for the examination of new dependent claims 23-28. The Commissioner is authorized to charge

Appl. No. 09/855,924
Amdt. Dated October 15, 2003
Reply to Office Action of April 16, 2003
Attorney Docket No. 13445-102

additional fees or credit overpayment to Deposit Account No. 03-2410,
order 13445-102.

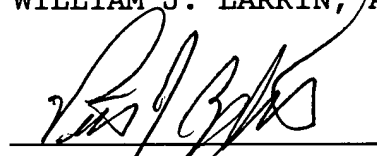
In accordance with Section 714.01 of the M.P.E.P., the following
information is presented in the event that a call may be deemed
desirable by the Examiner:

PETER J. BORGHETTI (617) 854-4000.

Dated: October 15, 2003

Respectfully submitted,
WILLIAM J. LARKIN, Applicant

By:



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